SUMMARY OF 1971 SPRING CHINOOK SALMON RUN

The upriver spring Chinook run into the Columbia River in 1971 was below average (156,000 compared to a 10-year average of 171,700). However, due to several factors (mainly high river flows and shortened seasons), the regular commercial fishery harvested its second lowest total since 1938. This resulted in a good Bonneville Dam count of 125,500 (compared to a 10-year average of 102,200), that was exceeded only once in the last ten years and was the seventh highest count since 1938. The Indian commercial fishery (above Bonneville Dam) was 2,000 fish below the 10-year average resulting in an escapement above all the Columbia River fisheries of 115,100 spring Chinook (10-year average of 90,000). This was exceeded only once in the last 10 years and is the fifth highest escapement since 1938. In summary, the run into the river was below average, but due to the low commercial catches, the number of fish passing Bonneville Dam was excellent as was the calculated escapement above the last fishery.

Passage of spring chinook past dams upstream from Bonneville was very poor due to high river flows. The bulk of the good fish passage at dams occurred on occasions when the flows dropped. The delays caused large number of chinook to be held up between the dams with the biggest holdup between Bonneville and The Dalles dams. The delays are especially alarming in view of the high nitrogen supersaturation levels present throughout the Columbia and Snake rivers this spring. The extent of mortalities due to nitrogen disease is believed to be correlated with the length of time the fish are in the affected waters. Considering the prevailing 1971 river conditions, we expect large losses of the fish between dams as well as a substantial delayed

to an estimated 70 percent mortality due to nitrogen disease. If these losses prove to be accurate, we can expect an extremely low run in 1972.

The one bright hope for limiting nitrogen supersaturation is the installation of slotted bulkheads in the dams at an early date. (These bulkheads were installed in empty turbine bays at dams to allow excess water to pass through the dam rather than plunging over the spillway.) The installation of the bulkheads and added new storage capacity in Dworshak, Libby, and other reservoirs on the upper Columbia River should reduce nitrogen as a significant factor. However, it will take at least three to five years before things are back to normal.

We feel that we must do everything possible to aid the fish in surviving this period of nitrogen crisis. It is apparent that we cannot fish these runs as heavily now as we have when they were in good condition.

RECOMMENDED REGULATION CHANGES FOR 1972

We recommend the following changes to go into effect for the 1972 season and to continue until the nitrogen crisis has passed.

(1) Reduced Limits

	Season	Daily	7-Day Possession
Chinook	5	1	2
Steelhead	10	1	2

(2) After an angler has landed and recorded his daily limit (1) he must stop fishing for the day.

(3) Season Length Restriction

a, If the 1972 chinook run is bad, we will consider a short or closed season.

b. No extensions of chinook seasons will be recommended.

mortality to fish that actually pass the last dam. We estimated an average 50 percent delayed mortality during 1969 and 1970 as a result of high nitrogen levels during those years. In summary, relatively large numbers of chinook were in the Columbia and Snake rivers. However, adverse water conditions and larger than normal interdam losses minimized the number of these fish that passed Little Goose Dam.

The established minimum escapement goal at the last dam (Little Goose) is 32,000 spring chinook. During normal years this is considered an adequate escapement to provide adequate numbers of spawning fish and an average sport fishery in Idaho. The final count at Little Goose Dam was 28,432 spring chinook. However, due to the delays, a portion of the spring chinook passed Little Goose Dam after the normal cutoff date. The delayed spring chinook may have made the actual spring run total around the 32,000 figure at Little Goose Dam. An escapement of 32,000 during 1971 will not be adequate if the anticipated delayed mortalities result from nitrogen disease. The final spring chinook counts at the Columbia and Snake River dams are as follows:

Bonneville Dam……	125,520	Ice Harbor……	32,641
The Dalles……	73,661	Lower Monumental….	30,887
John Day……	56,505	Little Goose……	28,432
McNary……	42,601	Lewiston (July 27)…….	2,172

Rapid River Hatchery. . . . .5,100 (3,346 adults, 1,754 jacks)

High flows limited Idaho's sport fishing through early July. This reduced the total chinook harvest to a smaller than normal level. No extension in season length was allowed due to the size of the run and adverse nitrogen conditions.

PROSPECTS FOR 1972 SPRING CHINOOK RUN

The prospects for 1972 look even less promising than those for 1971. Chinook smolts migrating to the ocean in 1970 were subjected

c. Steelhead season length should also be reduced. We need to provide a larger natural spawning escapement and more adult returns to the Pahsimeroi Hatchery. The tentative season lengths (listed on the following map) are designed to: (1) obtain desired increases in individual spawning escapements, and (2) divide reductions up by stream area so as to not make one group of anglers or section of river take all the reductions.

Savings from the regulations should amount to 25 to 35 percent for steelhead and 15 to 20 percent for chinook.

From information gathered from several thousand permits that were returned, we have determined that:

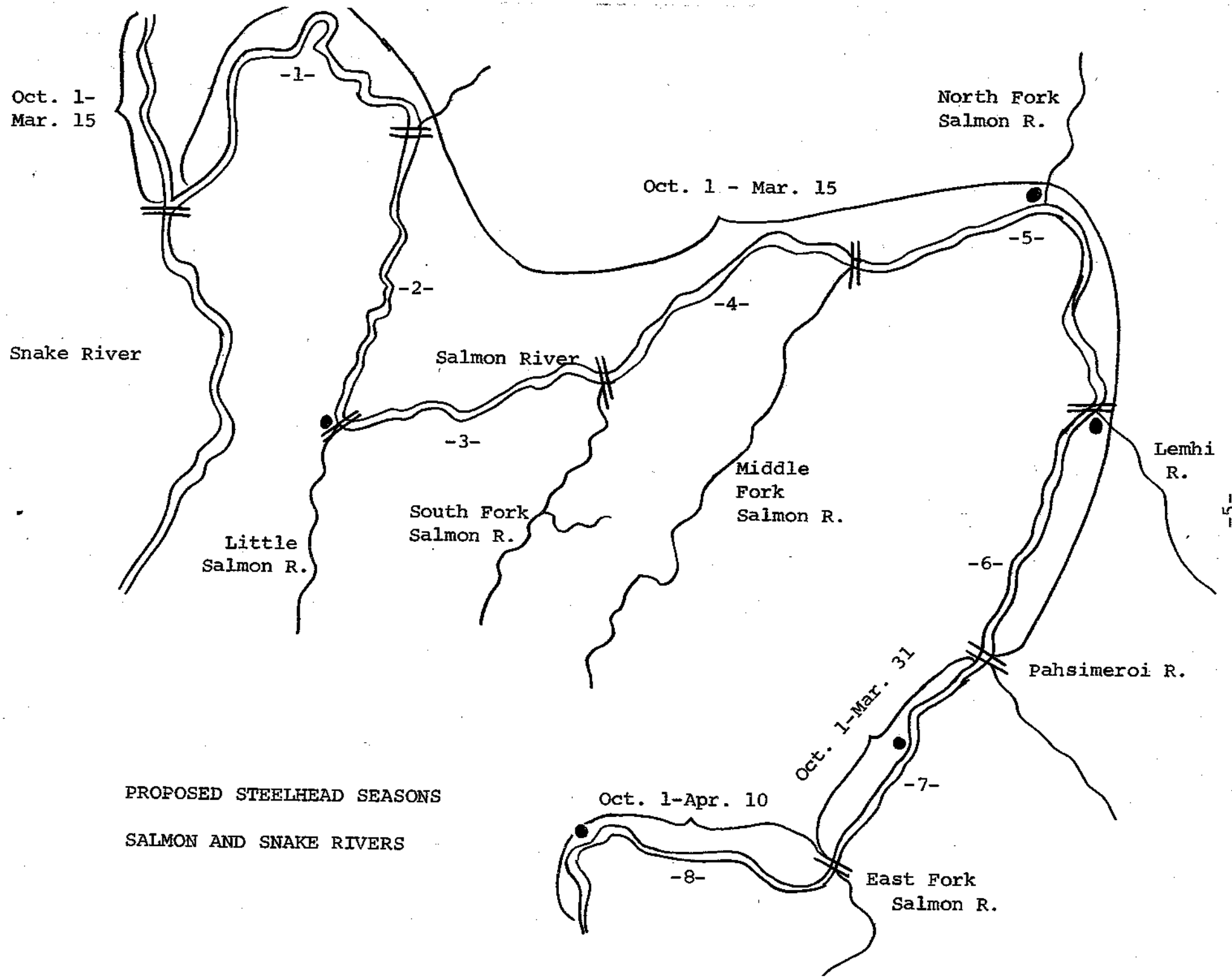
The daily limit reduction will affect approximately 11.5 percent of the steelhead anglers and 7.5 percent of the chinook anglers. The season limit reductions should affect about 1.5 percent of the steelhead anglers and a like amount of the chinook anglers.

In conjunction with these regulation changes, we would also:

(1) ask the downriver agencies to make cutbacks to increase escapements to the Snake River drainage, and

(2) increase our anadromous fish production wherever possible.

August, 1971



PROPOSED STEELHEAD SEASONS

SALMON AND SNAKE RIVERS